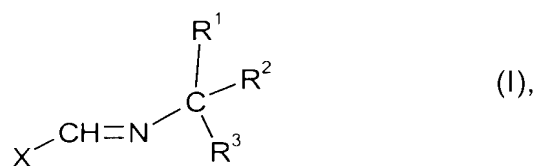


WHAT IS CLAIMED IS:

1. A process for preparing a 2-alkyl-aryl- or -heteroaryloxaziridine comprising oxidizing a corresponding N-alkyl-aryl- or -heteroarylaldimine with an aromatic percarboxylic acid or a salt thereof in the presence of water, a water-soluble base, and a water-miscible solvent, at temperatures below 30°C.

2. A process according to Claim 1 wherein an N-alkyl-aryl- or -heteroarylaldimine of the formula (I)



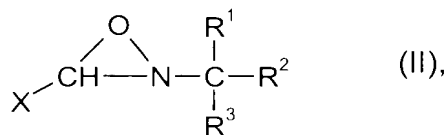
wherein

R¹, R², and R³ independently of one another each represent hydrogen, straight-chain or branched C₁-C₂₀-alkyl, C₃-C₈-cycloalkyl, straight-chain or branched C₂-C₁₀-alkenyl, or C₆-C₁₀-aryl, or the entire C(R¹)(R²)(R³) group represents a C₃-C₈-cycloalkyl radical, and

- X represents C₆-C₁₂-aryl or heteroaryl having 4 or 5 C atoms and 1 or 2 identical or different heteroatoms selected from the group consisting of N, O, and S,

wherein all alkyl, cycloalkyl, alkenyl, aryl, and heteroaryl radicals may optionally be mono- or polysubstituted,

- is oxidized to form the corresponding 2-alkyl-3-aryl- or -heteroaryloxaziridines of the formula (II)



in which R¹, R², R³, and X are as defined for formula (I).

3. A process according to Claim 2 wherein one or more alkyl radicals are mono- or polysubstituted by saturated C₃-C₁₂-cycloalkyl,

C₆-C₁₀-aryl, C₂-C₈- alkenyl, fluorine, chlorine, bromine, iodine, hydroxyl, C₁-C₆-alkoxy, C₆-C₁₀-aryloxy, carboxyl, C₁-C₆-alkoxycarbonyl, nitro, amido, nitrile, sulfonyl, or phosphate and wherein one or more cycloalkyl, alkenyl, aryl, and heteroaryl radicals are mono- or polysubstituted by
5 C₁-C₆-alkyl, fluorine, chlorine, bromine, hydroxyl, C₁-C₆-alkoxy, carboxyl, C₁-C₆-alkoxycarbonyl, nitro, sulfonyl, or nitrile.

4. A process according to Claim 2 wherein in formulas (I) and (II),

10 R¹, R², and R³ independently of one another each represent hydrogen, straight-chain or branched C₁-C₁₀-alkyl, C₃-C₆-cycloalkyl, straight-chain or branched C₃-C₆-alkenyl, or phenyl or the entire C(R¹)(R²)(R³) group represents C₃-C₆-cycloalkyl, wherein the radicals are not substituted any further, and
X
15 represents phenyl, naphthyl, or furyl, wherein the phenyl and naphthyl radicals may optionally be substituted by one or two identical or different radicals selected from the group consisting of C₁-C₆-alkyl, fluorine, chlorine, bromine, hydroxyl, C₁-C₆-alkoxy-carbonyl, nitro, sulfonyl, and nitrile.

20 5. A process according to Claim 1 wherein the percarboxylic acid or the salt thereof is m-chloroperbenzoic acid or monoperoxyphthalic acid or an alkali metal or magnesium salt thereof.

6. A process according to Claim 1 wherein the water-soluble base is an alkali metal or alkaline earth metal oxide, hydroxide, carbonate, bicarbonate, hydrogen phosphate, or dihydrogen phosphate.

25 7. A process according to Claim 1 wherein the water-miscible solvent is a mono- or polyhydric alcohol having up to 6 C atoms.

8. A process according to Claim 2 comprising
(1) initially preparing a mixture comprising 5 to 80% by weight of the aldimine of the formula (I) in the water-miscible solvent,

- (2) reacting the mixture with the aqueous solution comprising 15 to 30% by weight of a base,
- (3) adding a 1 to 20% by weight strength solution of an aromatic percarboxylic acid or a salt thereof to the resulting mixture at such a rate that the reaction temperature does not exceed 30°C,
- (4) stirring the resulting mixture at from 5 to 30°C until the reaction has ended, and
- (5) working up the reaction mixture by phase separation or extraction.

9. A process according to Claim 2 wherein, based on the aldimine of the formula (I), from 0.09 to 2 equivalents of base and from 0.9 to 1.2 equivalents of active oxygen in the form of an aromatic percarboxylic acid or salt thereof are used.

10. 2-Isopropyl-3-(4-methoxyphenyl)oxaziridine.

11. 2-n-Propyl-3-(4-methoxyphenyl)oxaziridine.